

REMARKS

Claims 1-3, 6-9, 11-13, 16, 17 and 19 remain rejected under 35 USC 103(a) as unpatentable over Jonsson. The rejection is respectfully traversed.

According to the claimed invention, a monitoring value is entered into a data channel, which is predetermined and to be conveyed, with consecutive time frames. A differential image device determines the difference between the TSSI monitoring value at time T_0 and the TSSI monitoring value at time T_0+1 . The object of the invention thus allows for the straightforward and cost-effective determination of a TSSI violation in a coupling field.

According to the claimed invention, a predetermined value X can be determined by extracting the respective TSSI monitoring value in consecutive time slots and computing the difference. This value X is determined on the basis of the difference between two TSSI monitoring values ($D(t_0)-D(t_{0+1})$) deposited consecutively in the time frame. Thus, by comparing a value X previously inserted into the TSSI insertion device with the difference between the TSSI monitoring values, a correct time slot sequence for immediately consecutive time frames in a coupling network can be determined. The claimed invention permits permanent monitoring during the entire connection period

The Examiner asserts that Jonsson teaches a method and device for maintaining synchronization slots in a switching network and using a marking device for inserting markings in a plurality of successive frames in the time slots of the connection channels to be switched. The Examiner admits that Jonsson fails to specifically disclose forming a difference of the inserted contents of the data channel of successive frames, wherein the difference is equal to the predetermined value for indicating a correct time slot sequence, or outputting an error when the difference does not equal the predetermined value.

Applicants submit that Jonsson does not relate to error recognition during the actual use of the connection, and that signaling of the error status in the system to an external operator is not possible. Jonsson actually relates to chronologically limited TSSI recognition, whereas the claimed invention relates to permanent TSSI monitoring. Jonsson draws a distinction between two chronological segments, the setup of the connection and the use of the connection. The marking of

time slots at the input, detection at the output and derivation of the necessary delay for the output data occur during connection setup. Monitoring of the TSSI functionality is only possible during this time. Once connection setup is complete, the connection's time slots are used for voice data. Beginning at this point, that is, for the bulk of the connection time, monitoring of TSSI functionality no longer occurs. In contrast, according to the claimed invention, permanent monitoring of TSSI functionality throughout the entire duration of the connection is provided.

Applicants further submit that although Jonsson teaches generating fixed marking values, the use of the counter CNT cited by the Examiner (Office Action, page 6, with reference to claim 13) does not correspond to the generation of consecutive marking values by a counter used in the claimed invention. In Jonsson, only certain counter values are stored in the registers. Specifically, they are binary 0, 1, 2. Jonsson fails to make reference to a connection between the marking values in the generator registers and the reference value inputs of the comparators in the detector part. Thus, only a fixed and preset range of values for the marking values can be used according to Jonsson, and the comparators in the detector part must be familiar with this range.

The claimed invention is not limited in a similar manner because, partly as a result of the consecutively generated values and the principle of the forming of a difference, it is not required to know the absolute value of the marking values, and thus the claimed invention operates under a fundamentally different principle.

For these reasons, the features of claims 1-3, 6-9, 11-13, 16, 17 and 19 are not taught or suggested by Jonsson. Applicants request that this rejection be withdrawn.

Claims 4, 5, 10, 14, 15 and 18 remain rejected under 35 USC 103(a) as unpatentable over Jonsson in view of Cloutier. This rejection is respectfully traversed.

Claims 4, 5, 10, 14 and 15 are allowable at least due to their respective dependencies and the failure of Jonsson to teach that which the Examiner asserts, and further in view of the following.

Cloutier describes a method and an implementation for the detection and correction of data jitter in packet-based networks (especially ATM networks). Cloutier refers to ATM networks which, from the standpoint of signal engineering, constitute a different category of technology than

chronologically synchronous TDM network. Cloutier addresses a specific problem (jitter of consecutive, fundamentally asynchronous data packets) in packet-based networks, which does not occur in this form in chronologically synchronous TDM networks.

With regard to claims 4 and 14, the Examiner refers to Cloutier, col. 10, lines 6-67, as disclosing subtraction of two consecutive PCR values and comparison with an expected result for the correct synchronization of received data. However, these PCR values are used as a means of deriving chronological information for cycle recovery from the flow of data packets received by the recipient. This information is then used to adjust the frequency of the reception cycle to the fluctuations caused by jitter in the transport network. In this manner, quasi-analog control (voltage-controlled VCXO, col. 2, line 55) of the reception cycle and synchronization of the reception data is achieved.

The Examiner asserts that it would have been obvious to modify Jonsson in view of Cloutier because Cloutier teaches one way of providing the comparison data that forms the basis for the instructions fed to the memory of the equalizing means, thereby enabling validation/correction of the data's time slot sequence. This is actually contrary to what is being taught by Cloutier, and thus there would have been no motivation to combine the references as asserted by the Examiner.

Furthermore, the error signal taught by Cloutier does not constitute a system error, but rather a function-related offset, which serves as a control variable for the VCXO, which generates the reception cycle.

In view of the foregoing, Applicants request that this rejection be withdrawn.

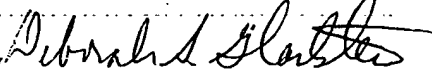
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and

authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 449122030600.

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Respectfully submitted,

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